



**Argon Engineering
Associates, Inc.**

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Argon Engineering is a rapidly growing systems engineering and development company providing full service information solutions to a wide range of customers. The business vision is to grow by providing unique state-of-the-art technology solutions to difficult system problems. Argon currently provides: sensor development, data collection and decision support, analysis and design of information retrieval, and visualization techniques.

Argon received the prestigious Tibbets award in 2001 for its work in developing the CCA. The Tibbet's award is given to company's that exemplify excellence in SBIR programs.

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SBIR Investment: \$1.2M*

Non-SBIR Investment: \$705K

* Includes Phase II Enhancement Funds

Cryptologic Component Architecture (CCA)



About the Technology

Argon's Cryptologic Component Architecture (CCA) is a set of standards, practices, and interfaces that support seamless technology transition and evolution while maintaining information operations (IO) dominance consistent with Maritime Cryptologic Architecture-21 (MCA-21) and Maritime Cryptologic Signals -21 (MCS-21). Each technology is characterized according to capacity, throughput, commonality with other Navy IO systems, ease of integration, projected technology trend, platform flexibility, mission flexibility, and target flexibility. Additionally, optimal radio direction finding (RDF) and beam forming algorithms for shipboard applications have been developed using the framework of the MCA-21/MCS-21 to effectively generate bearings and to perform adaptive beam forming in a shipboard environment.

Benefits to PEO C4I&Space and other DOD Programs

The CCA provides the Navy with high-performance wideband signal detection, recognition, and RDF beam forming architecture that can readily incorporate technology enhancements as well as software based functional enhancements. Regular advances in the underlying commercial general purpose cards/processors will provide the "headroom" for adding new information warfare capabilities without having an impact on system size or procurement costs. At the same time, the ability to meet current and future cryptologic/information warfare challenges and new threats will be dramatically enhanced. The underlying commercial infrastructure will also enable the system to keep pace with the regular changes planned for Navy information technology equipment and is consistent with the Navy's thrust for network centric operations.

Why CCA Improves the Technology

- Relegates enhancements to affordable modifications to system software instead of new hardware.
- Adds new capabilities without having an impact on system size.
- Architecture is scalable from man-transportable systems on battery power to large-scale resource rich systems.

Military and Commercial Significance

- This new architecture will be incorporated into the Navy's next generation shipboard cryptologic information warfare (CIW) system that will allow the Navy to meet current and future CIW challenges.
- Applicable to surface, sub-surface, airborne, land-mobile, and fixed-site installations with optional remote control capabilities.
- The CCA is the foundation of roughly \$100 M in contract awards to date..

